Claims:

- 1. Process for recycling of waste carpeting and waste carpeting containing materials which comprises multiple separation steps using selective solvents under controlled temperature conditions which steps include selective stepwise separation and recovery of carpet backing, adhesives, and individual types and compositions of fibers present.
- 2. The process of Claim 1 for recycling and recovery of products from waste carpeting which includes as preliminary steps the reduction of the waste carpeting to granular, particulate form followed by treatment to remove inert solids and non-fibrous fillers.
- 3. The process of Claim 1 in which the waste carpeting and waste carpeting containing materials contain substantial amounts of nylon fibers which are separated and recovered as fibers or polymer.
- 4. The process of Claim 1 in which the waste carpeting contains substantial amounts of nylon fibers and substantial amounts of at least one other fiber which is substantially separated from the nylon fibers, and each polymer fiber composition, as recovered, suitable for polymer reuse.
- 5. The process of Claim 4 in which at least one of the fibers other than nylon fiber is a synthetic polymer fiber.
- 6. The process of Claim 5 in which at least one of the synthetic fibers other than nylon is a polyester.
- 7. The process of Claim 5 in which at least one of the synthetic fibers other than nylon is a polyamide.

- 8. The process of Claim 5 in which at least one of the fibers other than nylon is a terephthalate polymer.
- 9. The process of Claim 4 in which at least one of the fibers other than nylon is natural fiber.
- 10. The process of Claim 1 in which the selective solvent employed for separation of the nylon fiber fraction comprises at least substantial percentages of at least one polyhydric alcohol used at preselected, controlled temperatures from which the nylon is subsequently separated by controlled temperature variation.
- 11. The process of Claim 1 in which the Nylon 6 is separated from Nylon 6,6 by preselected variation and control of temperatures and time of treatment of a polyhydric alcohol solvent.
- 12. The process of Claim 10 in which the selective solvent is glycerol.
- 13. The process of Claim 10 in which the selective solvent is ethylene glycol.
- 14. The process of Claim 10 in which the selective solvent is propylene glycol.
- 15. The recovered nylon polymer obtained by the recycling steps for carpeting as described in Claim 1.